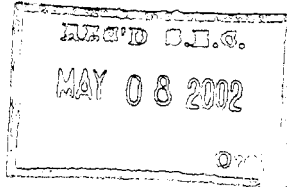


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# RUDOLPH

Technologies, Inc.

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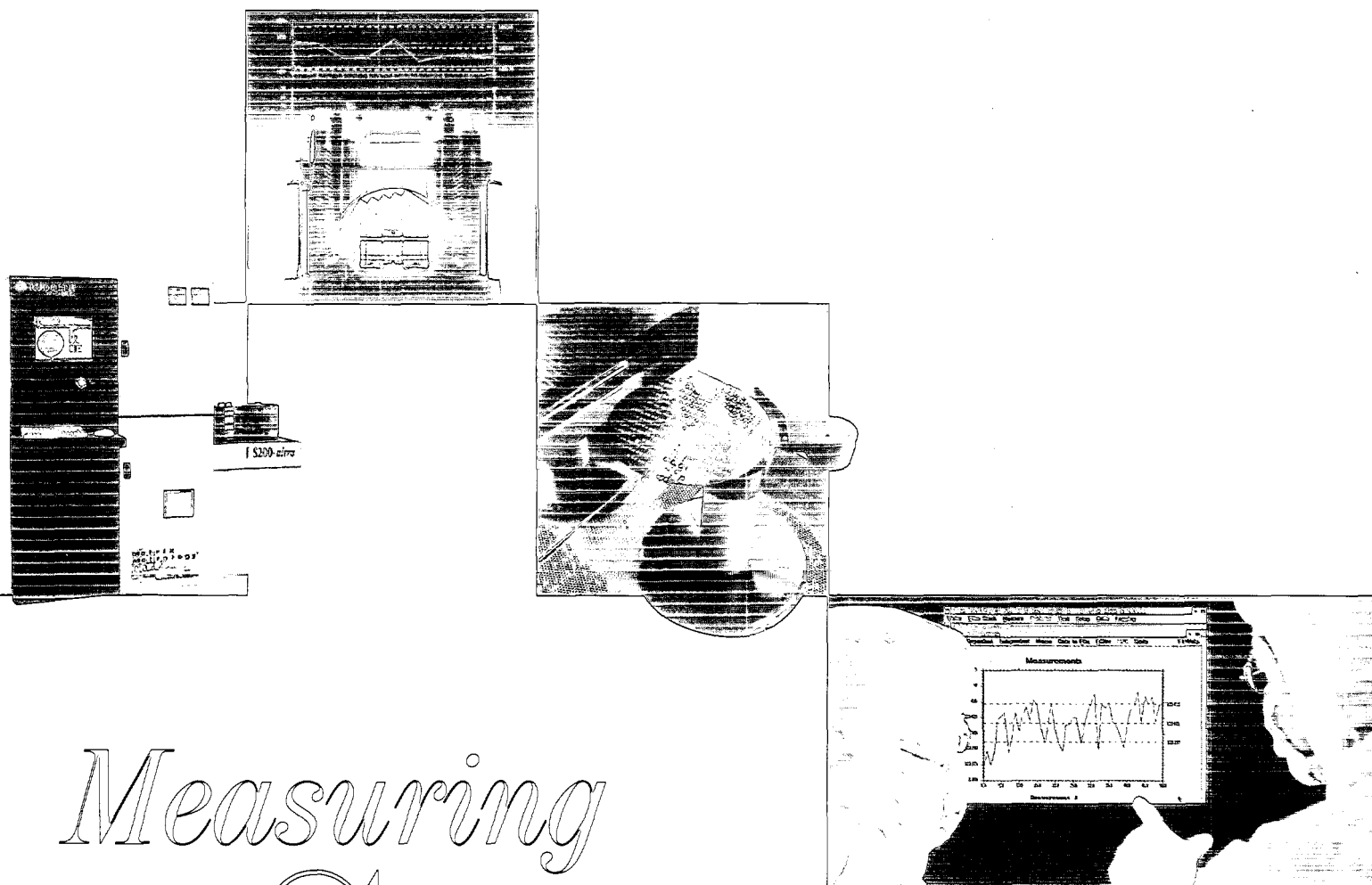
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ANNUAL REPORT

*Measuring Success*

# Rudolph Technologies

*Rudolph Technologies, Inc. is a worldwide leader in the design, development, manufacture and support of high-performance process control metrology systems used by semiconductor device manufacturers. The Company provides a full-fab solution through its families of proprietary systems for both transparent and opaque thin film measurement. Rudolph's product development has successfully anticipated and addressed many emerging trends that are driving the semiconductor industry's growth. These include the need to measure metal films non-destructively, the evolution to copper interconnect lines, the progression to 300mm wafer size, and the emergence of ultra-thin gate process control. With new products driving Rudolph's growth, the Company remains focused on developing leading-edge metrology products, processes and services through aggressive research and development.*



*Measuring*  
SUCCESS

# Financial Highlights

	1999	2000	2001
<i>(in thousands, except share and per share data)</i>			
Revenues	\$38,095	\$88,107	\$ 79,398
Cost of revenues	18,301	41,854	39,798
Gross profit	19,794	46,253	39,600
Operating expenses	15,027	23,824	24,135
Operating income	4,767	22,429	15,465
Net income per diluted share	0.22	1.49	0.71
Pro forma net income per diluted share*	0.14	0.88	0.71
Weighted average shares	10,431,477	15,805,188	16,531,461

\*Pro forma information excludes certain tax adjustments and nonrecurring items.

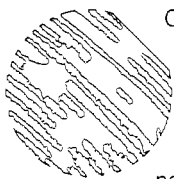
## Year End Status

Cash and cash equivalents	\$35,076	\$29,736	\$ 94,642
Working capital	49,217	70,122	128,647
Total assets	64,947	98,554	147,798
Stockholders' equity	57,610	83,508	142,150

Revenue <i>(dollars in millions)</i>		Average System Selling Price <i>(dollars in thousands)</i>		Book Value per Share at Year End <i>(dollars)</i>	
2001	<input type="text"/> \$79.4	2001	<input type="text"/> \$875	2001	<input type="text"/> \$8.81
2000	<input type="text"/> \$88.1	2000	<input type="text"/> \$716	2000	<input type="text"/> \$5.62
1999	<input type="text"/> \$38.1	1999	<input type="text"/> \$695	1999	<input type="text"/> \$3.92

# The Evolution from Aluminum to Copper is a Groundbreaking

## To Our Fellow Shareholders



Our goal in 2001 was to maintain Rudolph's technical leadership position while continuing to outperform the overall semiconductor capital equipment market. I am pleased to report we met those goals while remaining profitable in each and every quarter despite a very challenging business environment. Moreover, we expanded Rudolph's already "best-of-breed" technology by introducing two new product families, one for transparent metrology, the other for opaque metrology. Our operating and financial performance in 2001 reinforced Rudolph's standing as one of the best-positioned companies in the production metrology sector of the semiconductor capital equipment market. For the year, our revenue totaled \$79.4 million, and net income was \$11.7 million, or \$.71 per diluted share.

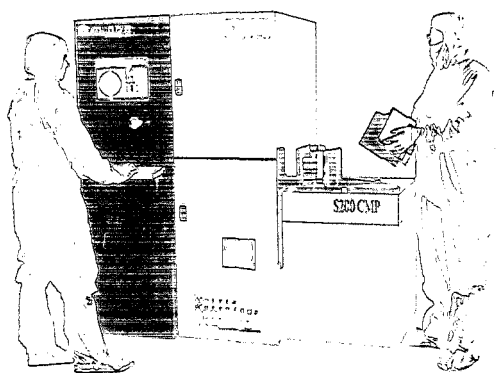
During the year, Rudolph was recognized for its industry leadership and financial performance by one of the most respected institutions in the investment community. Standard & Poor's added us to the S&P SmallCap 600 Index. We have worked hard to grow our business and deliver strong earnings and return on equity for our shareholders. Shareholders' equity increased 70% to \$142.2 million.

Despite the macroeconomic and geopolitical events of 2001, we remained focused on increasing Rudolph's market share. We accomplished this by addressing groundbreaking trends—the transition from aluminum interconnect wiring to copper interconnect, which significantly increases chip speed and reduces power draw; the move to 300mm wafers, which offers a cost savings of between 30 and 40 percent over 200mm wafers; the development of 0.13 micron and smaller features, which increases the need for thinner, more uniform film layers; and finally, the challenges of new materials, particularly transistor gate dielectric materials and advanced low-k dielectrics.

This has created unprecedented challenges and growth opportunities in thin film metrology for Rudolph, which is reaffirmed by the fact that 75% of 2001 sales were from our *MetaPULSE*® and *MatrixMetrology*™ products.

We believe our unique *MetaPULSE* tools have become the industry standard for copper measurement metrology. Overall, 24 of the 32 Rudolph customers now using *MetaPULSE* tools are using our copper and copper-ready models. This represents nearly all of the device manufacturers who are making copper interconnect a part of their chip-development roadmap. Thirty-six customers have purchased our *MatrixMetrology* tools for their most challenging leading-edge transparent film applications.

Another indication of our leadership position is the fact that we have design wins for our 300mm tools at 20 different customers. This number includes wins for both our *MatrixMetrology* transparent family of products as well as our *MetaPULSE* products. We expect these design wins in both product areas to result in volume orders when the industry renews its growth cycle.



# *Trend* for Our Industry and for Rudolph

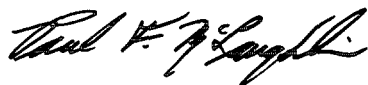
Additionally, our growth strategy continues to be to invest in new products during industry downturns. And in keeping with Rudolph's commitment to drive R&D to meet trends as soon as they emerge, we introduced two new families of tools designed to help chipmakers meet metrology roadblocks identified in the ITRS Roadmap through 2005 and beyond. These two MatrixMetrology tools, the *MetaPULSE-II™* and the *S200/S300-ultra™*, incorporate technological breakthroughs that will allow us to strengthen Rudolph's position as a leading supplier of non-destructive in-line metrology tools for both multi-layer transparent and metal films.

As a result of our ability to develop and deliver leading-edge products, we have long held the belief that Rudolph would be one of the last semiconductor equipment companies to be affected by a downturn—we *were*.

More importantly, Rudolph continues to win business at the engineering level. We have done this by developing technologies specifically designed to meet critical metrology roadmap requirements. In doing so, we believe we have clearly positioned Rudolph to be one of the first companies to benefit in an up cycle, when device companies will increase spending for advanced manufacturing technology. Furthermore, the investments we made in our infrastructure and manufacturing capabilities allow Rudolph to be in a stronger position for the industry's recovery.

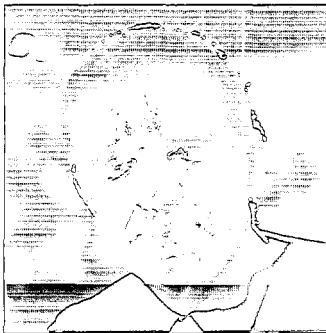
On behalf of the Board of Directors, I extend sincere appreciation to our dedicated employees worldwide. Your extraordinary commitment and knowledge provide the competitive edge that is the foundation Rudolph needs for future success. I also extend thanks to our customers, shareholders, and suppliers for your support during 2001 and your continued belief in Rudolph in 2002.

Sincerely yours,

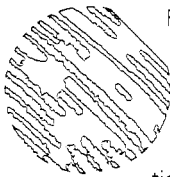


**Paul F. McLaughlin**

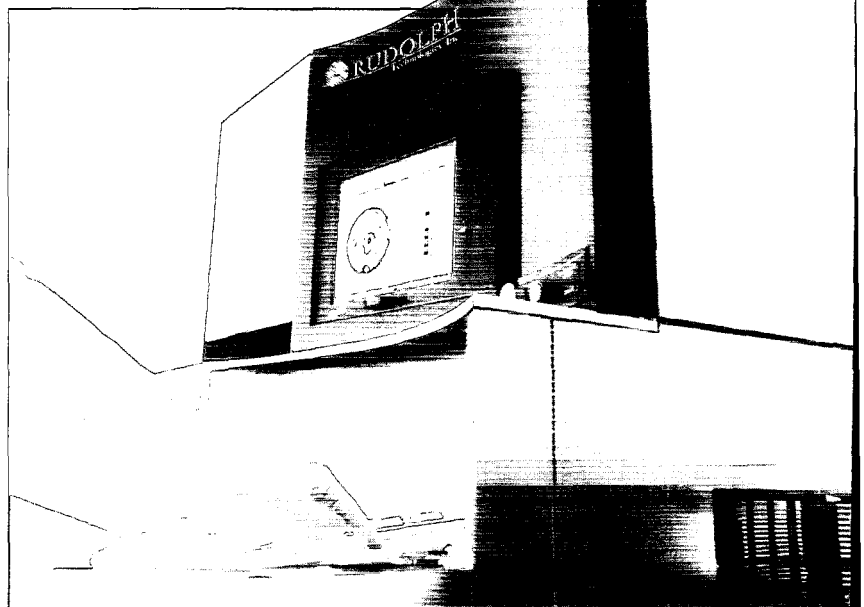
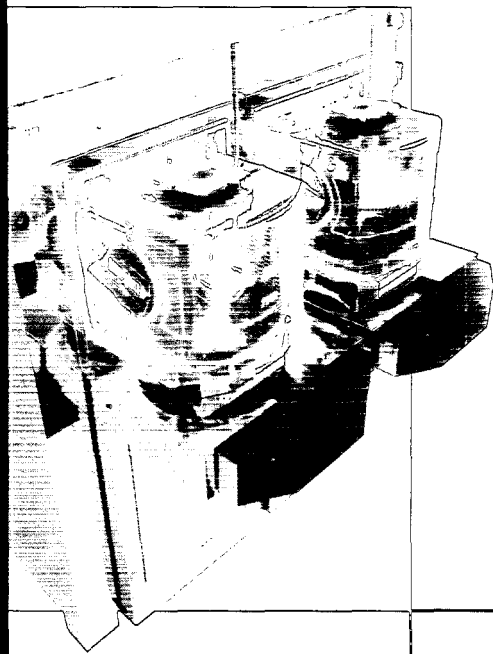
*Chairman and Chief Executive Officer*



# Building an Infrastructure for *Future Growth*



Rudolph Technologies' growth strategy is to invest in R&D during an industry downturn, in order to be one of the first beneficiaries of a recovery in demand for semiconductor capital equipment. By working in close collaboration with our customers, which include 13 of 15 of the largest device manufacturers worldwide, Rudolph has distinguished itself in its ability to anticipate the price, performance and functionality requirements of the leading semiconductor device manufacturers. Consistently first to market, Rudolph is a true technical leader, as our products are specifically designed to provide the right tools and processes to meet metrology roadmap requirements spelled out in the International Technology Roadmap for Semiconductors (ITRS) for chip manufacturers worldwide.



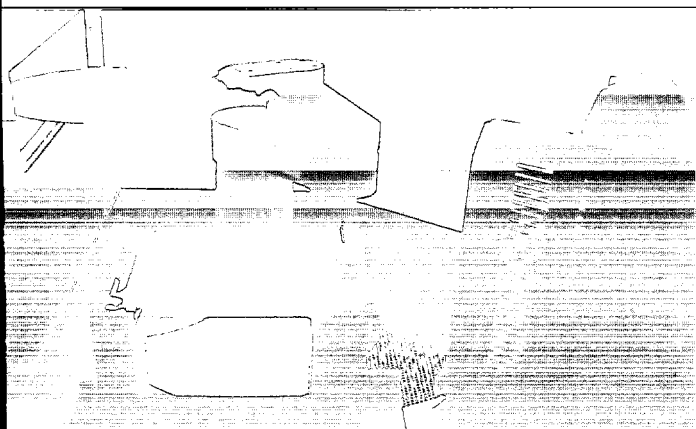
The semiconductor industry stands poised at the threshold of groundbreaking trends—the evolution from aluminum interconnect wiring to copper interconnect, which significantly increases chip speed and reduces power draw; the move to 300mm wafers, which offers a cost saving of between 30 and 40 percent versus 200mm; and the development of 0.13 micron and smaller features, which increases the need for thinner, more uniform film layers—particularly with transistor gate dielectric materials. While these trends revolutionize chip manufacturing, they create unprecedented challenges in metrology for semiconductor capital equipment companies.

Rudolph has had the technological foresight to invest in process critical R&D, often before these trends emerged. This provides significant competitive advantages in some of the industry's fastest growing markets.

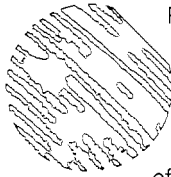
Rudolph's R&D expenses for 2001 totaled \$11.6 million, which was a 28.9% increase from 2000. R&D represented 14.6% of revenue, compared to 10.2% in the previous year. The year-over-year increase was due to our investment in the development of two new families for our MatrixMetrology products. We continue to increase our market share by designing and delivering leading-edge tools that improve application development time and tool cost of ownership. We have additionally created metrology that will save chipmakers money by providing on-product measurement, allowing for the reduction of capacity consuming monitor wafers. Furthermore, increased metrology generates additional profit as the early detection of yield-robbing process problems recaptures production opportunities. As evidence of Rudolph's leading-edge tools, new product sales for 2001 represented 75% of total revenue.

Additionally, Rudolph enhanced its infrastructure by implementing a new online enterprise resource planning system and expanded its manufacturing facilities, which increased the Company's monthly production capacity. In 2001, we increased our manufacturing capacity by approximately 40%. As a result, when end-user demand rises and device manufacturers increase spending for enabling new process technology, Rudolph will be well positioned to take advantage of the opportunity.

Rudolph's investments in *R&D*,  
*infrastructure* and *manufacturing*  
facilities position the Company  
to be one of the first  
beneficiaries of the  
*industry's*  
*recovery.*



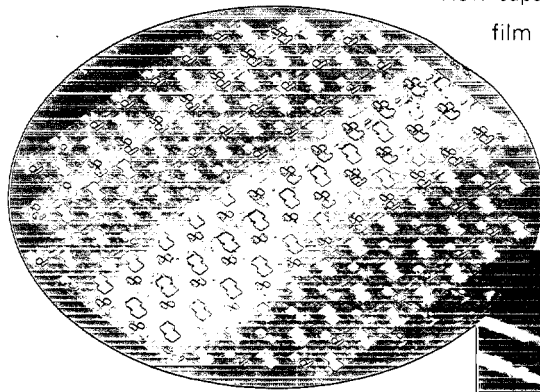
# Meeting Our Customers' *Challenges*



Rudolph's success lies in our ability to design leading-edge tools that meet the critical drivers spelled out by the International Technology Roadmap for Semiconductors (ITRS) for device manufacturers worldwide. These technological breakthroughs allow us to strengthen our position as the supplier of choice for non-destructive, in-line metrology tools for both multi-layer transparent and multi-layer metal films.

The success of the first generation of Rudolph's *MetaPULSE* technology has made it the industry standard for metal film metrology. As a result of the experience gained from over 200 customer years of collaborating with major logic, ASIC, and memory chip manufacturers worldwide, we introduced the *MetaPULSE-II* metal-film metrology system, the second generation of Rudolph's unique PULSE Technology™.

New capabilities of the *MetaPULSE-II* enable effective opaque film metrology for barrier/seed and electrodeposited copper on the low-k and ultra low-k ILD materials that will be used in future-generation semiconductors.





It also provides advanced means for measuring dishing and erosion on fine line structures during CMP of electro-deposited copper films. An additional benefit of the *MetaPULSE-II* is the built-in visible reflectometer, which is Rudolph's first multi-technique measurement system to respond to the trend toward convergence of transparent and metal film measurement requirements for the most advanced metrology applications.

The S200/S300-*ultra* series is the next generation of Rudolph's S200/S300™ transparent film metrology system released in 2000. It also meets a critical industry need by providing a robust and highly repeatable means of controlling integrated ultra-thin polysilicon over gate film stacks produced by new gate-stack cluster tools.

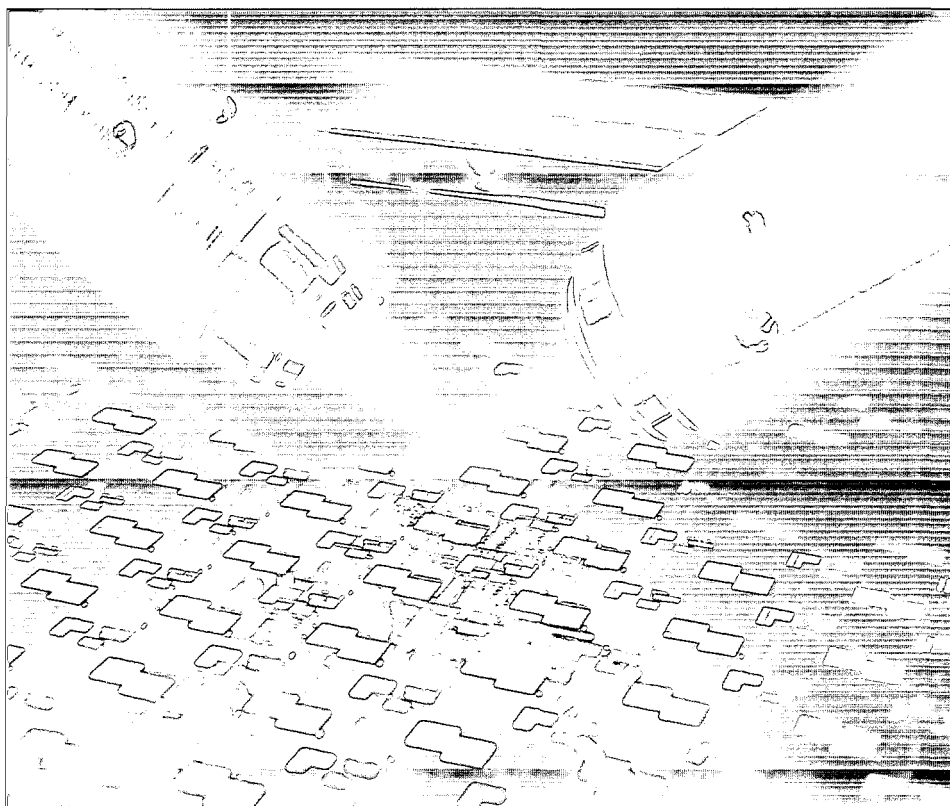
Gate metrology has been Rudolph's established area of excellence, having the largest installed base of ellipsometers with over 2,600 tools shipped. Many are used to measure the thinnest films found in the diffusion bay in a fab.

The S-*ultra* series of transparent film measurement tools incorporates a new ellipsometer with advanced measurement capabilities that we expect will allow us to keep our number one position in the diffusion bay. We are additionally encouraged as metrology market requirements for sub-20 Angstrom gates move towards Rudolph's sweet spots of ultra-repeatable, ultra-thin, ultra-reliable transparent film measurement.

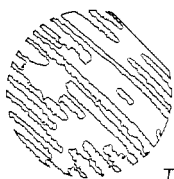
Rudolph ended 2001 with a total of 32 customers who purchased *MetaPULSE* tools in order to meet aluminum and copper metrology needs for leading-edge devices. Additionally, 36 customers have purchased Rudolph's MatrixMetrology tools for leading-edge transparent film applications.

As a result of Rudolph's ability to develop and deliver leading-edge products, we believe nearly all of the device manufacturers developing copper processes are making Rudolph's *MetaPULSE* metal interconnect metrology tools a part of their chip development roadmap. Strategically positioned for growth, Rudolph will remain a technical leader, as we continue designing products that meet our customers' challenges.

Rudolph  
is *achieving*  
its *goal*  
of making its  
tools a  
required purchase.



# A Measure of Success



*The unprecedented geopolitical and macroeconomic events of 2001 created a challenging business environment for the semiconductor industry. Nevertheless, Rudolph achieved significant milestones during the year.*

*Rudolph's greatest accomplishment was not a single event or contract, but rather was the Company's ability to deliver new leading-edge metrology tools while maintaining profitability every quarter throughout 2001. As a result, Rudolph's 2001 net income was \$11.7 million, or \$.71 per diluted share.*

*This was made possible through our vision of developing tools specifically designed to help chipmakers overcome metrology roadblocks identified in the ITRS through 2005 and beyond. Rudolph's ahead-of-the-roadmap products allow our customers to make a purchase with complete technical confidence, essential as device companies increase spending for advanced manufacturing processes driven by end user demand. We further managed our profitability during this challenging period by implementing certain cost-cutting initiatives. Leading companies control expenses at reduced sales levels—clearly, Rudolph is one of them.*

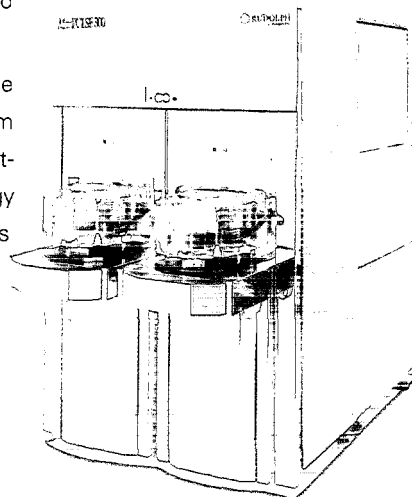
## Other 2001 milestones:

**RUDOLPH WAS RECOGNIZED** for its leadership and performance by one of the most respected financial institutions in the investment community, Standard & Poor's, by being added to the S&P SmallCap 600 Index.

**RUDOLPH RECEIVED ITS 70TH ORDER** for its copper *MetaPULSE* technology. The order was placed by one of Taiwan's leading foundry companies in July.

**RUDOLPH INTRODUCED *METAPULSE-II***, a completely re-designed, second-generation *MetaPULSE* system for 200mm or 300mm wafers. Rudolph remains the only company to ship the unique PULSE Technology based tools that enable semiconductor manufacturers to deal with the metrology challenges of measuring multi-layer metal films non-destructively on product wafers. This technology is enabling manufacturers to characterize and ramp up copper interconnect processes.

**RUDOLPH INTRODUCED A NEW METROLOGY SYSTEM** for transparent films, the S200-*ultra* and S300-*ultra* Laser Spectroscopic Ellipsometer for 200mm or 300mm wafers. It is built on a versatile metrology platform, which is extendable to next-generation device metrology. This system is the latest in Rudolph's MatrixMetrology line and brings the Company one step closer to providing film metrology capabilities for every process used in semiconductor production from transistor gate formation through completed integrated circuits.



# *Financial*

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## OVERVIEW

We are a worldwide leader in the design, development, manufacture and support of process control metrology systems used in semiconductor device manufacturing. Our proprietary systems measure the thickness and other properties of thin films applied during various steps in the manufacture of integrated circuits, enabling semiconductor device manufacturers to improve yields and reduce overall production costs. We provide our customers with a flexible full-fab metrology solution by offering families of systems that meet their transparent and opaque thin film measurement needs in various applications across the fabrication process. Our two primary families of metrology solutions offer leading-edge metrology technology, flexible systems cost-effectively designed for specific manufacturing applications and a common production-worthy automation platform, all backed by worldwide support.

Historically, a significant portion of our revenues in each quarter and year has been derived from sales to relatively few end user customers, and we expect this trend to continue\*. In 1999, 2000 and 2001 sales to end user customers that individually represented at least five percent of our revenues accounted for 49.3%, 27.8% and 42.5% of our revenues. In 1999, 2000 and 2001 sales to Intel accounted for 31.2%, 19.4% and 33.4% of our revenues.

In addition, a significant portion of our revenues in each quarter and year has been derived from sales to particular distributors. These distributors purchase our products for ultimate distribution to customers in particular geographic regions. In 1999, sales to Tokyo Electron Limited, or TEL, our exclusive distributor in Japan, and to distributor Metron Technology accounted for 6.3% and 5.8% of our revenues. In 2000 and 2001, sales to TEL accounted for 21.9% and 14.8% of our revenues. We terminated our distribution agreement with Metron in August 1999. Currently, the only distributor we use is TEL. We expect that sales to TEL will continue to account for a significant portion of our revenues for at least the next several years\*.

We do not have purchase contracts with any of our customers or distributors that obligate them to continue to purchase our products, and they could cease purchasing products from us at any time. A delay in purchase or cancellation by any of our large customers could cause quarterly revenues to vary significantly. In addition, during a given quarter, a significant portion of our revenues may be derived from the sale of a relatively small number of systems. Our transparent film measurement systems range in price from approximately \$200,000 to \$1.0 million per system and our opaque film measurement systems range in price from approximately \$900,000 to \$1.8 million per system. Accordingly, a small change in the number of systems we sell may also cause significant changes in our operating results. Because fluctuations in the timing of orders from our major customers or distributors or in the number of our individual systems we sell could cause our revenues to fluctuate significantly in any given quarter or year, we do not believe that period-to-period comparisons of our financial results are necessarily meaningful, and they should not be relied upon as an indication of our future performance.

A significant portion of our revenues has been derived from customers outside of the United States, and we expect this trend to continue. In 1999, approximately 52.9% of our revenues were derived from customers outside of the United States, of which 28.3% were derived from customers in Asia and 19.9% were derived from customers in Europe. In 2000, approximately 54.7% of our revenues were derived from customers outside of the United States, of which 39.5% were derived from customers in Asia and 12.1% were derived from customers in Europe. In 2001, approximately 53.7% of our revenues were derived from customers outside of the United States, of which 36.6% were derived from customers in Asia and 14.5% were derived from customers in Europe. Substantially all of our revenues to date have been denominated in United States dollars.

The sales cycle for our systems typically ranges from six to 15 months, and can be longer when our customers are evaluating new technology. Due to the length of these cycles, we invest significantly in research and development and sales and marketing in advance of generating revenues related to these investments. Additionally, the rate and timing of customer orders may vary significantly from month to month. Accordingly, if sales of our products do not occur when we expect, and we are unable to adjust our estimates on a timely basis, our expenses and inventory levels may increase relative to revenues and total assets.

## RESULTS OF OPERATIONS

The following table sets forth, for the periods indicated, our statements of income data as percentages of our revenues. Our results of operations are reported as one reportable business segment.

	Year Ended December 31,		
	1999	2000	2001
Revenues .....	100.0%	100.0%	100.0%
Cost of revenues .....	48.0	47.5	50.1
Gross profit.....	52.0	52.5	49.9
Operating expenses:			
Research and development .....	13.1	10.2	14.7
Selling, general and administrative .....	25.2	16.4	15.3
Amortization .....	1.1	0.4	0.4
Total operating expenses .....	39.4	27.0	30.4
Operating income .....	12.5	25.5	19.5
Interest expense (income) and other, net .....	9.6	(2.5)	(3.5)
Income before provision (benefit) for income taxes, extraordinary item and cumulative effect of a change in accounting principle .....	2.9	28.0	23.0
Provision (benefit) for income taxes .....	(5.7)	(0.5)	8.2

	Year Ended December 31,		
	1999	2000	2001
Income before extraordinary item and cumulative effect of a change in accounting principle .....	8.6	28.5	14.8
Extraordinary item .....	1.1	—	—
Cumulative effect of accounting change .....	—	1.7	—
Net income .....	7.5	26.8	14.8
Preferred stock dividends .....	1.3	—	—
Net income available to common stockholders .....	6.1%	26.8%	14.8%

## RESULTS OF OPERATIONS 1999, 2000 AND 2001

**Revenues.** Our revenues are derived from the sale of our metrology systems, services and spare parts. Our revenues were \$38.1 million, \$88.1 million and \$79.4 million in the years 1999, 2000 and 2001. These changes represent an increase of 131.2% from 1999 to 2000 and a decrease of 9.9% from 2000 to 2001. The increase in revenues from 1999 to 2000 was primarily due to increases in unit volume shipments to existing customers and expanded sales of our 300 millimeter and copper products, partially offset by the impact of the new accounting method for revenue recognition. The decrease in revenues from 2000 to 2001 was primarily due to an industry-wide slowdown in demand for semiconductor devices and equipment. This resulted in a decrease in orders for our products as well as postponements and cancellations of existing orders. Revenues from customers outside of the United States represented 52.9%, 54.7% and 53.7% of our revenues in 1999, 2000 and 2001. Revenues from customers outside of the United States increased as a percentage of revenues from 1999 to 2001 as a result of increased sales to existing customers in Europe and Asia. We expect that revenues generated from customers outside of the United States will continue to account for a significant percentage of our revenues\*.

**Cost of Revenues and Gross Profit.** Cost of revenues consists of the labor, material and overhead costs of manufacturing our systems, spare parts cost and the cost associated with our worldwide service support infrastructure. Our gross profit was \$19.8 million, \$46.3 million and \$39.6 million in 1999, 2000 and 2001. These changes represent an increase of 133.8% from 1999 to 2000 and a decrease of 14.4% from 2000 to 2001. Our gross profit represented 52.0%, 52.5% and 49.9% of our revenues in 1999, 2000 and 2001. The increase in gross profit margin from 1999 to 2000 resulted from improved manufacturing efficiencies due to outsourcing and cycle time reduction initiatives and higher revenues, which cover a larger portion of fixed costs. The increase in gross profit dollars was the result of higher unit sales. There can be no assurances that our outsourcing and cycle time reduction initiatives will be effective or materially increase our gross profit margins. The decrease in gross profit margin from 2000 to 2001 was primarily due to a decrease in business volume, which resulted in customer support and fixed manufacturing costs being a higher component of a lower revenue base.

**Research and Development.** The thin film transparent and opaque process control metrology market is characterized by continuous technological development and product innovations. We believe that the rapid and ongoing development of new products and enhancements to existing products, including the transition to copper and low-k dielectrics, the progression to 300mm wafers, the continuous shrinkage in critical dimensions, and the evolution of ultra-thin gate process control, is critical to our success. Accordingly, we devote a significant portion of our technical, management and financial resources to research and development programs. Research and development expenditures consist primarily of salaries and related expenses of employees engaged in research, design and development activities. They also include consulting fees, prototype equipment expenses and the cost of related supplies. Our research and development expenditures were, \$5.0 million, \$9.0 million and \$11.6 million in 1999, 2000 and 2001. These changes represent an increase of 80.3% from 1999 to 2000 and an increase of 28.9% from 2000 to 2001. Research and development expenditures represented 13.1%, 10.2% and 14.6% of revenues in 1999, 2000 and 2001. The increase in research and development expenses from 1999 to 2000 and from 2000 to 2001 resulted from higher personnel costs, parts costs associated with new product development and engineering facilities expansion.

**Selling, General and Administrative.** Selling, general and administrative expense is primarily comprised of salaries and related costs for sales, marketing, and general administrative personnel, as well as commissions, and other non-personnel related expenses. Our selling, general and administrative expense was \$9.6 million, \$14.5 million and \$12.2 million in 1999, 2000 and 2001. These changes represent an increase of 50.8% from 1999 to 2000 and a decrease of 15.8% from 2000 to 2001. Selling, general and administrative expense represented 25.2%, 16.4% and 15.3% of revenues in 1999, 2000 and 2001. The increase from 1999 to 2000 resulted from increased commissions, higher personnel related costs and the commencement of certain infrastructure projects. The decrease from 2000 to 2001 resulted from lower commissions, the completion of certain infrastructure projects in prior periods and cost reduction initiatives.

**Amortization.** Amortization expense is related to the core technology and goodwill we acquired from our predecessor company in 1996. Our expense for amortization was \$0.4 million in 1999 and \$0.3 million in 2000 and 2001.

**Interest Expense (Income) and Other, Net.** In 1999 interest expense, net of interest income of \$0.3 million, was \$3.7 million. In November 1999, we retired all of our outstanding debt with a portion of the proceeds of our initial public offering. In 2000, interest income was \$2.2 million as we invested the net proceeds from our initial public offering. In 2001, interest income increased to \$2.8 million resulting from investing the net proceeds from our follow-on public offering in February 2001. Included in other income is miscellaneous nonrecurring income resulting from the disposal of capital equipment and several other nonrecurring transactions. Other income was \$21,000 in 1999 and \$1,000 in both 2000 and 2001.

**Provision (Benefit) for Income Taxes.** We use the liability method of accounting for income taxes prescribed by Statement of Financial Accounting Standards No. 109, Accounting for Income Taxes. Our provision (benefit) for income taxes was a benefit of \$2.2 million in 1999, a benefit of \$0.4 million in 2000 and a provision of \$6.5 million in 2001. Our effective tax rate was (200%), (2%) and 36% in 1999, 2000 and 2001, respectively. During 1998, the net deferred tax asset was reduced to zero with a valuation allowance as a result of recurring losses and with the uncertainty regarding our ability to generate sufficient taxable income. In 1999 and 2000, based on industry and internal forecasts combined with the successful completion of our initial public offering and the reduction of debt, we reduced the deferred tax valuation allowance by \$2.8 million and \$8.6 million, for certain deferred tax assets that more likely than not would be realized. We computed our effective tax rate for 2001 on prevailing federal and state rates adjusted for research and development tax credits and income derived from tax exempt interest.

**Extraordinary Item.** Our extraordinary item in 1999 resulted from the write-off of deferred financing costs related to the early extinguishment of debt in the amount of \$427,000, net of tax of \$5,000.

**Change in Accounting Principle.** Effective January 1, 2000, we changed our method of accounting for revenue recognition to comply with Securities and Exchange Commission's Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101"). Revenue is now recognized upon shipment provided that there is persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable, and collection of the related receivable is reasonably assured. Certain sales of our products are sold and accounted for as multiple element arrangements, consisting of the sale of the product and installation. We generally recognize revenue upon delivery of the product, which is prior to installation, as the actions required to perform the installation are deemed to be perfunctory. Installation is deemed to be perfunctory based on our sales and installation history for similar products and customers and the fact that other vendors can and have performed the installation. When customer acceptance is subjective and not obtained prior to shipment, we defer a portion of the product revenue until such time as positive affirmation of acceptance has been obtained from the customer. Customer acceptance is generally based on our products meeting published performance specifications. The amount of revenue allocated to the shipment of products is done on a residual method basis. Under this method, the total arrangement value is allocated first to undelivered contract elements, based on their fair values, with the remainder being allocated to product revenue. The fair value of installation services is based upon billable hourly rates and the estimated time to complete the service. Revenue related to undelivered installation services is deferred until such time as installation is completed at the customer's site. Previously, we had recognized revenue upon shipment of equipment to customers, which usually preceded installation and final customer acceptance, provided final customer acceptance and collection of the related receivable were probable.

The effect of the change was to increase revenue by \$4.2 million for the year ended December 31, 2001 and decrease revenue by \$2.1 million for the year ended December 31, 2000. The deferred revenue balance to be recognized in future periods as of December 31, 2001 was \$0.2 million.

**Preferred Stock Dividends.** We accrued cumulative dividends on our 8% preferred stock of \$0.5 million in 1999. In November 1999, we retired all of our outstanding preferred stock with a portion of the proceeds of our initial public offering and paid all accrued dividends.

## LIQUIDITY AND CAPITAL RESOURCES

We increased our cash and cash equivalents from \$29.7 million at December 31, 2000 to \$94.6 million at December 31, 2001. Our financial condition remained strong with working capital of \$70.1 million and \$128.6 million at December 31, 2000 and 2001, respectively.

Typically during periods of revenue growth, changes in accounts receivable and inventories represent a use of cash as we incur costs and expend cash in advance of receiving cash from our customers. Similarly, during periods of declining revenue, changes in accounts receivable and inventories represent a source of cash as inventory purchases decline and revenue from prior periods is collected.

Net cash used in operating activities was \$0.7 million and \$4.6 million in 1999 and 2000. Net cash provided by operating activities was \$23.0 in 2001. The use of cash in operating activities during 1999 and 2000 was primarily the result of having to fund an increase in accounts receivable and an increase in inventories, offset by net income. Net cash provided by operating activities in 2001 was primarily due to net income combined with a decrease in accounts receivable.

Net cash used in investing activities was \$1.0 million, \$1.4 million and \$2.4 million in 1999, 2000 and 2001. Capital expenditures for 1999 were primarily used to establish our new manufacturing and customer training facility in New Jersey. Capital expenditures for 2000 were primarily used for the purchase and installation of enterprise resource planning software, computer equipment necessary for our operations and costs associated with renovations to our corporate headquarters. Capital expenditures for 2001 were primarily used for renovations to our corporate facility and upgrades to existing computer systems. Capital expenditures over the next twelve months are expected to be approximately \$1.5 million.\*

Net cash provided by financing activities was \$36.3 million, \$0.7 million and \$44.4 million in 1999, 2000 and 2001. In November 1999, we completed the initial public offering of 5,520,000 shares of our common stock at \$16.00 per share. Net proceeds to us after the underwriting discount and other fees amounted to \$80.8 million. We used a portion of these funds to retire all outstanding long-term debt and repay outstanding preferred stock. In 2000, net cash provided by financing activities equaled the cash proceeds received by us when our employees exercised stock options and participated in the employee stock purchase plan. In February 2001, we completed the follow-on public offering of 1,000,000 shares of our common stock at \$45.00 per share. Net proceeds to us after the underwriting discount and other fees amounted to \$42.0 million. In addition, we received

cash proceeds of \$2.3 million from stock option exercises and participation in our employee stock purchase plan.

We believe that our cash and cash equivalents and cash flow from operations, will be adequate to meet our anticipated cash needs for working capital and capital expenditures needs for at least the next twelve months\*. Any significant acquisitions by us may require additional equity or debt financing to fund the purchase price, if paid in cash. There can be no assurance that additional funding will be available when required or that it will be available on terms acceptable to us.

## CRITICAL ACCOUNTING POLICIES

Management's discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. We review the accounting policies we use in reporting our financial results on a regular basis. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to accounts receivable, inventories, intangible assets, income taxes and warranty obligations. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Results may differ from these estimates due to actual outcomes being different from those on which we based our assumptions. These estimates and judgments are reviewed by management on an ongoing basis, and by the Audit Committee at the end of each quarter prior to the public release of our financial results. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

**Revenue Recognition.** Effective January 1, 2000, we changed our method of accounting for revenue recognition to comply with Securities and Exchange Commission Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Revenue is recognized upon shipment provided that there is persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable, and collection of the related receivable is reasonably assured. Certain sales of our products are sold and accounted for as multiple element arrangements, consisting of the sale of the product and installation. We generally recognize revenue upon delivery of the product, which is prior to installation, as the actions required to perform the installation are deemed to be perfunctory. Installation is deemed to be perfunctory based on our sales and installation history for similar products and customers and the fact that other vendors can and have performed the installation. If the historical data we use to determine the perfunctory nature of installation is incorrect, we may have to recognize revenue at a later date. When customer acceptance is subjective and not obtained prior

to shipment, we defer a portion of the product revenue until such time as positive affirmation of acceptance has been obtained from the customer. Customer acceptance is generally based on our products meeting published performance specifications. The amount of revenue allocated to the shipment of products is done on a residual method basis. Under this method, the total arrangement value is allocated first to undelivered contract elements, based on their fair values, with the remainder being allocated to product revenue. The fair value of installation services is based upon billable hourly rates and the estimated time to complete the service. Revenue related to undelivered installation services is deferred until such time as installation is completed at the customer's site.

**Allowance for Doubtful Accounts.** We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We specifically analyze accounts receivable and analyze historical bad debts, customer concentrations, customer credit-worthiness, current economic trends and changes in our customer payment terms when evaluating the adequacy of the allowance for doubtful accounts. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments or our assumptions are otherwise incorrect, additional allowances may be required.

**Excess and Obsolete Inventory.** We write down our excess and obsolete inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future product life-cycles, product demand and market conditions. If actual product life-cycles, product demand and market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

**Warranties.** We provide for the estimated cost of product warranties at the time revenue is recognized. While we engage in product quality programs and processes, our warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required.

**Accounting for Income Taxes.** As part of the process of preparing our consolidated financial statements, we are required to estimate our actual current tax exposure together with our temporary differences resulting from differing treatment of items for tax and accounting purposes. These temporary differences result in deferred tax assets which are included within our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent we believe that recovery is not likely, we must establish a valuation allowance. Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and any valuation allowance recorded against our deferred tax assets. At December 31, 2001, we had no valuation allowance established against our deferred tax assets. The valuation allowance is based on our estimates of taxable income by jurisdiction in which we operate and the period over which our deferred taxes will be recoverable. In the event

that actual results differ from these estimates or we adjust these estimates in future periods, we may need to establish a valuation allowance which could materially impact our financial position and results of operations.

#### **IMPACT OF RECENT ACCOUNTING PRONOUNCEMENTS**

In July 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 141 ("SFAS No. 141"), Business Combinations (effective July 1, 2001) and Statement of Financial Accounting Standard No. 142, ("SFAS No. 142"), Goodwill and Other Intangible Assets (effective for the Company on January 1, 2002). SFAS No. 141 prohibits pooling-of-interests accounting for acquisitions. SFAS No. 142 specifies that goodwill and some intangible assets will no longer be amortized but instead will be subject to periodic impairment testing. We do not expect the adoption of SFAS No. 142 to have a significant impact on our financial position and results of operations. Amortization of goodwill was immaterial for the year ended December 31, 2001.

In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 143 ("SFAS No. 143"), Accounting for Asset Retirement Obligations (effective for fiscal years beginning after June 15, 2002). SFAS No. 143 addresses accounting and reporting for obligations associated with the retirement of tangible long-lived assets and retirement of assets. We do not expect the adoption of SFAS No. 143 to have a significant impact on our financial position and results of operations.

In October 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 144 ("SFAS No. 144"), Accounting for the Impairment or Disposal of Long-Lived Assets. SFAS No. 144 changes the accounting for long-lived assets by requiring that all long-lived assets be measured at the lower of carrying amount or fair value less cost to sell, whether reporting continuing operations or in discontinued operations. SFAS No. 144, which replaces SFAS No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of, is effective for fiscal years beginning after December 15, 2001. We do not expect the adoption of SFAS No. 144, which is effective for the Company as of January 1, 2002, to have a significant impact on our financial position and results of operations.

#### **QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

##### ***Interest Rate Risk***

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We do not use derivative financial instruments in our investment portfolio. We place our investments with high credit quality issuers and by policy, are averse to principal loss and ensures the safety and preservation of our invested funds by limiting default risk, market risk and reinvestment risk. As of December 31, 2001, our investments consisted primarily of commercial paper and municipal securities that mature in less than three months.

##### ***Foreign Currency Risk***

We do not use foreign currency forward exchange contracts or purchased currency options to hedge local currency cash flows or for trading purposes. All sales arrangements with international customers are denominated in U.S. dollars. We have branch operations in Taiwan, Singapore and Korea and a wholly-owned subsidiary in Europe, which are subject to currency fluctuations. These foreign branches are limited in their operations and level of investment so that the risk of currency fluctuations is not expected to be material.

#### **CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this Annual Report, including those concerning our expectations of our leadership position in an industry recovery, future sales, gross profits, research, development and engineering expenses, selling, general and administrative expenses, product introductions and cash requirements, are forward-looking statements. The statements contained in this Annual Report that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. In addition, we may, from time to time make oral forward-looking statements. These forward-looking statements include but are not limited to those identified in this report with an asterisk (\*) symbol. Additional forward-looking statements may be identified by the words "anticipate," "believe," "expect," "intend," "will" and similar expressions, as they relate to us or our management.

The forward-looking statements contained herein reflect our current views with respect to future events and are subject to certain risks, uncertainties and assumptions. Actual results may differ materially from those projected in such forward-looking statements for a number of reasons including the following: variations in the level of orders which can be affected by general economic conditions and growth rates in the semiconductor manufacturing industry and in the markets served by our customers, the international economic and political climates, difficulties or delays in product functionality or performance, the delivery performance of sole source vendors, the timing of future product releases, failure to respond adequately to either changes in technology or customer preferences, changes in pricing by us or our competitors, ability to manage growth, risk of nonpayment of accounts receivable or changes in budgeted costs. For a more complete discussion of these factors, please refer to the Business section of our Annual Report on Form 10-K for the year ended December 31, 2001, and our other public offerings.



# Consolidated Balance Sheets

(In thousands, except share and per share data)	December 31,	
	2000	2001
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents .....	\$29,736	\$ 94,642
Accounts receivable, less allowance of \$443 in 2000 and \$328 in 2001 .....	27,132	13,523
Inventories .....	23,773	22,695
Income taxes receivable .....	1,349	917
Deferred income taxes .....	2,834	1,864
Prepaid expenses and other current assets .....	344	654
Total current assets .....	85,168	134,295
Property, plant and equipment, net .....	3,824	5,221
Intangibles .....	2,520	2,181
Deferred income taxes .....	6,628	5,790
Other assets .....	414	311
Total assets .....	\$98,554	\$147,798
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable .....	\$ 3,517	\$ 789
Accrued liabilities:		
Commissions .....	622	180
Payroll and related expenses .....	1,851	727
Warranty .....	1,072	972
Deferred revenue .....	4,999	1,489
Other current liabilities .....	2,985	1,491
Total current liabilities .....	15,046	5,648
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 5,000,000 shares authorized, no shares issued and outstanding at December 31, 2000 and 2001 .....	—	—
Common stock, \$0.001 par value, 50,000,000 shares authorized, 14,871,885 and 16,136,003 issued and outstanding at December 31, 2000 and 2001, respectively .....	15	16
Additional paid-in capital .....	87,385	134,315
Accumulated other comprehensive loss .....	(275)	(304)
Retained earnings (accumulated deficit) .....	(3,617)	8,123
Total stockholders' equity .....	83,508	142,150
Total liabilities and stockholders' equity .....	\$98,554	\$147,798

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated Statements of Income

(In thousands, except share and per share data)	Year Ended December 31,		
	1999	2000	2001
Revenues .....	\$38,095	\$88,107	\$79,398
Cost of revenues.....	18,301	41,854	39,798
Gross profit .....	19,794	46,253	39,600
Operating expenses:			
Research and development .....	5,003	9,022	11,625
Selling, general and administrative .....	9,588	14,463	12,171
Amortization .....	436	339	339
Total operating expenses .....	15,027	23,824	24,135
Operating income .....	4,767	22,429	15,465
Interest expense (income) and other, net.....	3,680	(2,174)	(2,774)
Income before provision (benefit) for income taxes, extraordinary item and cumulative effect of a change in accounting principle .....	1,087	24,603	18,239
Provision (benefit) for income taxes .....	(2,179)	(431)	6,499
Income before extraordinary item and cumulative effect of a change in accounting principle .....	3,266	25,034	11,740
Extraordinary item (net of tax of \$5) .....	427	—	—
Cumulative effect of change in accounting principle (net of tax of \$924) .....	—	1,458	—
Net income .....	2,839	23,576	11,740
Preferred stock dividends .....	508	—	—
Net income available to common stockholders .....	\$ 2,331	\$23,576	\$11,740
Basic earnings per share:			
Income before extraordinary item and cumulative effect of a change in accounting principle .....	\$ 0.41	\$ 1.69	\$ 0.74
Extraordinary item .....	(0.05)	—	—
Cumulative effect of a change in accounting principle .....	—	(0.09)	—
Preferred stock dividends .....	(0.06)	—	—
Net income available to common stockholders .....	\$ 0.30	\$ 1.60	\$ 0.74
Diluted earnings per share:			
Income before extraordinary item and cumulative effect of a change in accounting principle .....	\$ 0.31	\$ 1.58	\$ 0.71
Extraordinary item .....	(0.04)	—	—
Cumulative effect of a change in accounting principle .....	—	(0.09)	—
Preferred stock dividends .....	(0.05)	—	—
Net income available to common stockholders .....	\$ 0.22	\$ 1.49	\$ 0.71
Pro forma amounts assuming the accounting change is applied retroactively (See Note 2B):			
Income before extraordinary item .....	\$ 2,485	\$25,034	\$11,740
Per share amounts:			
Basic .....	\$ 0.32	\$ 1.69	\$ 0.74
Diluted .....	\$ 0.24	\$ 1.58	\$ 0.71
Net income available to common stockholders .....	\$ 1,550	\$25,034	\$11,740
Per share amounts:			
Basic .....	\$ 0.20	\$ 1.69	\$ 0.74
Diluted .....	\$ 0.15	\$ 1.58	\$ 0.71
Weighted average number of shares outstanding:			
Basic .....	7,880,622	14,773,295	15,899,933
Diluted .....	10,431,477	15,805,188	16,531,461

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated Statements of Stockholders' Equity

For the years ended December 31, 1999, 2000 and 2001

(In thousands, except share data)	Common Stock		Additional Paid-in Capital	Other Comprehensive Loss	Retained Earnings (Accumulated Deficit)	Total	Comprehensive Income (Loss)
	Shares	Amount					
Balance at December 31, 1998 .....	6,732,394	\$ 2	\$ 3,424	\$(153)	\$(30,032)	\$ (26,759)	
Retirement of common stock:							
Class A .....	(4,802,291)	(2)	—	—	—	(2)	
Class B .....	(2,301,074)	—	—	—	—	—	
Conversion to common stock:							
Class A .....	4,802,291	5	—	—	—	5	
Class B .....	2,301,074	2	—	—	—	2	
Exercise of stock warrants .....	2,045,702	2	—	—	—	2	
Issuance of common stock, net of expenses .....	5,520,000	6	80,833	—	—	80,839	
Exercise of employee stock options ..	386,610	—	258	—	—	258	
Net income .....	—	—	—	—	2,839	2,839	\$ 2,839
Accretion of preferred stock dividend .....	—	—	(508)	—	—	(508)	
Issuance of compensatory stock option .....	—	—	1,018	—	—	1,018	
Currency translation .....	—	—	—	(84)	—	(84)	(84)
Comprehensive income .....							<u>\$ 2,755</u>
Balance at December 31, 1999 .....	14,684,706	15	85,025	(237)	(27,193)	57,610	
Exercise of employee stock options and employee stock purchase plan .....	187,179	—	672	—	—	672	
Net income .....	—	—	—	—	23,576	23,576	\$23,576
Tax benefit of exercise of employee stock options .....	—	—	1,688	—	—	1,688	
Currency translation .....	—	—	—	(38)	—	(38)	(38)
Comprehensive income .....							<u>\$23,538</u>
Balance at December 31, 2000 .....	14,871,885	15	87,385	(275)	(3,617)	83,508	
Issuance of common stock, net of expenses .....	1,000,000	1	42,031	—	—	42,032	—
Exercise of employee stock options and employee stock purchase plan .....	264,118	—	2,364	—	—	2,364	—
Net income .....	—	—	—	—	11,740	11,740	11,740
Tax benefit of exercise of employee stock options .....	—	—	2,535	—	—	2,535	—
Currency translation .....	—	—	—	(29)	—	(29)	(29)
Comprehensive income .....							<u>\$11,711</u>
Balance at December 31, 2001 .....	<u>16,136,003</u>	<u>\$16</u>	<u>\$134,315</u>	<u>\$(304)</u>	<u>\$ 8,123</u>	<u>\$142,150</u>	

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated Statements of Cash Flows

(In thousands)	Year Ended December 31,		
	1999	2000	2001
<b>Cash flows from operating activities:</b>			
Net income .....	\$ 2,839	\$23,576	\$11,740
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Amortization .....	436	339	339
Amortization of unearned compensation .....	1,018	—	—
Depreciation .....	568	661	1,027
Extraordinary item .....	427	—	—
Provision for doubtful accounts .....	6	143	(115)
Deferred income taxes .....	(2,312)	(7,150)	1,808
Tax benefit for exercise of employee stock options .....	—	1,688	2,535
Decrease (increase) in assets:			
Accounts receivable .....	(5,116)	(17,815)	13,709
Income taxes receivable .....	270	(1,349)	432
Inventories .....	(1,982)	(12,400)	1,067
Prepaid expenses and other assets .....	(408)	(46)	(221)
Increase (decrease) in liabilities:			
Accounts payable .....	1,054	1,347	(2,726)
Accrued liabilities .....	1,038	1,178	(1,659)
Deferred revenue .....	654	4,345	(3,510)
Other current liabilities .....	794	857	(1,468)
Net cash provided by (used in) operating activities .....	(714)	(4,626)	22,958
<b>Cash flows from investing activities:</b>			
Purchase of property, plant and equipment .....	(1,036)	(1,388)	(2,431)
Proceeds from disposal of property, plant and equipment .....	51	16	—
Net cash used in investing activities .....	(985)	(1,372)	(2,431)
<b>Cash flows from financing activities:</b>			
Principal borrowings on long-term debt .....	2,345	—	—
Principal payments on long-term debt .....	(30,396)	—	—
Net borrowings under line of credit .....	(9,600)	—	—
Exercise of employee stock options and employee stock purchase plan .....	258	672	2,364
Redemption of preferred stock .....	(7,122)	—	—
Issuance of common stock, net of expenses .....	80,845	—	42,032
Net cash provided by financing activities .....	36,330	672	44,396
Effect of exchange rate changes on cash .....	14	(14)	(17)
Net increase (decrease) in cash and cash equivalents .....	34,645	(5,340)	64,906
Cash and cash equivalents at beginning of period .....	431	35,076	29,736
Cash and cash equivalents at end of period .....	\$35,076	\$29,736	\$94,642
<b>Supplemental disclosures of cash flow information:</b>			
Cash paid during the period for:			
Interest .....	\$ 3,275	—	—
Income taxes .....	—	\$ 5,454	\$ 2,030

The accompanying notes are an integral part of these consolidated financial statements.

**ORGANIZATION AND NATURE OF OPERATIONS:**

Rudolph Technologies, Inc. (the "Company") designs, develops, manufactures and supports high-performance process control metrology systems used in semiconductor device manufacturing. The Company has branch sales and service offices in Korea, Taiwan and Singapore and a wholly-owned sales and service subsidiary in Europe. The Company operates in a single segment and supports a wide variety of applications in the areas of diffusion, etch, lithography, CVD, PVD, and CMP.

**SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:****A. Consolidation:**

The consolidated financial statements reflect the consolidated balance sheet, results of operations and cash flows of the Company and its subsidiary. All intercompany accounts and transactions have been eliminated.

**B. Revenue Recognition and Change in Accounting Principle:**

Effective January 1, 2000, the Company changed its method of accounting for revenue recognition to comply with Securities and Exchange Commission's Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements ("SAB 101"). Revenue is now recognized upon shipment provided that there is persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable, and collection of the related receivable is reasonably assured. Certain sales of the Company's products are sold and accounted for as multiple element arrangements, consisting of the sale of the product and installation. The Company generally recognizes revenue upon delivery of the product, which is prior to installation, as the actions required to perform the installation are deemed to be perfunctory. Installation is deemed to be perfunctory based on the Company's sales and installation history for similar products and customers and the fact that other vendors can and have performed the installation. When customer acceptance is subjective and not obtained prior to shipment, the Company defers a portion of the product revenue until such time as positive affirmation of acceptance has been obtained from the customer. Customer acceptance is generally based on the Company's products meeting published performance specifications. The amount of revenue allocated to the shipment of products is done on a residual method basis. Under this method, the total arrangement value is allocated first to undelivered contract elements, based on their fair values, with the remainder being allocated to product revenue. The fair value of installation services is based upon billable hourly rates and the estimated time to complete the service. Revenue related to undelivered installation services is deferred until such time as installation is completed at the customer's site. Previously, the Company had recognized revenue upon shipment of equipment to customers, which usually preceded installation and final customer acceptance, provided final customer acceptance and collection of the related receivable were probable.

The effect of the change was to increase revenue by \$4.2 million for the year ended December 31, 2001 and decrease revenue by

\$2.1 million for the year ended December 31, 2000. The deferred revenue balance to be recognized in future periods in connection with the implementation of SAB 101, as of December 31, 2001 was \$0.2 million.

Revenues from parts sales are recognized at the time of shipment. Revenue from service contracts is recognized ratably over the period of the contract. A provision for the estimated cost of fulfilling warranty obligations is recorded at the time the related revenue is recognized.

Sales contracts with distributors contain fixed prices, current payment terms and are not subject to distributor's resale or any other contingencies. Accordingly, sales of finished products to distributors are recognized as revenue at the time of shipment. Distributors do not maintain inventory of our products, other than a small quantity of spare parts for warranty and maintenance purposes.

**C. Estimates:**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates made by management include allowance for doubtful accounts, inventory obsolescence, depreciation, amortization, taxes, contingencies, and product warranty. Actual results could differ from those estimates.

**D. Cash and Cash Equivalents:**

Cash and cash equivalents include cash and highly liquid debt instruments with original maturities of three months or less when purchased.

**E. Inventories:**

Inventories are stated at the lower of cost (first-in, first-out) or market. Demonstration units, which are available for sale, are stated at their manufacturing costs and reserves are recorded to adjust the demonstration units to their net realizable value.

**F. Property, Plant and Equipment:**

Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment is computed using the straight-line method over the estimated useful lives of the assets which are thirty years for buildings, seven years for machinery and equipment and furnitures and fixtures, and three years for computer equipment. Leasehold improvements are amortized using the straight-line method over the lesser of the lease term or the estimated useful life of the related asset. Repairs and maintenance costs are expensed as incurred and major renewals and betterments are capitalized. Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the fair value is less than the carrying amount of the asset, a loss is recognized for the difference. Asset impairment is determined based upon undiscounted cash flows. The fair value of an asset is computed based upon discounted cash flows. In the opinion of management, no such events or changes in circumstances have occurred.

#### **G. Intangibles:**

Intangibles consist of goodwill and purchased technology which are amortized on a straight-line basis over useful lives of 12 years and 2.5 to 12 years, respectively. Goodwill represents the excess of the purchase price over the fair value of the net assets acquired. Intangibles are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. In evaluating impairment of intangible assets, the Company utilizes the same methodology as discussed in the preceding paragraph.

#### **H. Concentration of Credit Risk:**

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist primarily of accounts receivable and cash. The Company performs ongoing credit evaluations of its customers and generally does not require collateral for sales on credit. The Company maintains reserves for potential credit losses. The Company maintains cash and cash equivalents with higher credit quality financial institutions and monitors the amount of credit exposure to any one financial institution.

#### **I. Warranties:**

The Company generally provides a warranty on its products for a period of twelve to fifteen months against defects in material and workmanship. Warranty expense amounted to \$470, \$1,349 and \$915 for the years ended December 31, 1999, 2000 and 2001, respectively. The Company has established reserves of \$1,072 and \$972 at December 31, 2000 and 2001, respectively, for anticipated future warranty costs.

#### **J. Income Taxes:**

The Company accounts for income taxes using the asset and liability approach for deferred taxes which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. A valuation allowance is recorded to reduce a deferred tax asset to that portion which more likely than not will be realized. Additionally, tax assets are separated into current and non-current amounts based on the classification of the related assets for financial reporting purposes.

#### **K. Translation of Foreign Currencies:**

The Company has foreign branches in Korea, Taiwan and Singapore, and a wholly-owned subsidiary in Europe which use their local currency as their functional currency. Assets and liabilities are translated at exchange rates in effect at the balance sheet date, and income and expense accounts and cash flow items are translated at average exchange rates during the period. Resulting translation adjustments are recorded directly as a separate component of stockholders' equity. Foreign exchange rate gains and losses included in operating results are not material for all periods presented.

#### **L. Stock Based Compensation:**

The Company grants stock options to employees with an exercise price equal to the fair value of the shares at the date of grant. The Company accounts for its employee stock option plan in accordance with provisions of the Accounting Principles Board's Opinion No. 25, "Accounting for Stock Issued to Employees" and, accordingly, recognizes no compensation expense for stock

option grants. The Company provides additional disclosure as required by Statement of Financial Accounting Standard ("SFAS") No. 123, "Accounting for Stock-Based Compensation" (see Note 7).

#### **M. Software Development Costs:**

The Company accounts for software development costs in accordance with SFAS No. 86, "Accounting for Costs of Computer Software to Be Sold, Leased or Marketed." SFAS No. 86 requires that certain software product development costs incurred after technological feasibility has been established, be capitalized and amortized, commencing upon the general release of the software product to the Company's customers, over the economic life of the software product. Annual amortization of capitalized costs is computed using the greater of: (i) the ratio of current gross revenues for the software product over the total of current and anticipated future gross revenues for the software product or (ii) the straight-line basis. Software product development costs incurred prior to the product reaching technological feasibility are expensed as incurred and included in research and development costs. Capitalized costs to date have been immaterial to date and, accordingly, SFAS No. 86 has no significant impact on the financial position or results of operations of the Company.

#### **N. Fair Value of Financial Instruments:**

The carrying amounts of the Company's financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximates fair value due to their short maturities.

#### **O. Risks Inherent in the Business:**

The Company sells its products to the semiconductor device industry and believes that changes in any of the following areas could have a material adverse effect on the Company's financial position, results of operations or cash flows: advances and trends in new technologies and industry standards; competitive pressures in the form of new products or price reductions on current products; changes in product mix; changes in the overall demand for products and services offered by the Company; changes in customer relationships; litigation or claims against the Company based on intellectual property, patent, product, regulatory or other factors; risks associated with changes in domestic and international economic and/or political conditions or regulations; dependency on suppliers and availability of necessary product components and the Company's ability to attract and retain employees necessary to support its growth.

#### **P. Recent Accounting Pronouncements:**

In July 2001, the Financial Accounting Standards Board issued SFAS No. 141, "Business Combinations" (effective July 1, 2001) and SFAS No. 142, "Goodwill and Other Intangible Assets" (effective for the Company on January 1, 2002). SFAS No. 141 prohibits pooling-of-interests accounting for acquisitions. SFAS No. 142 specifies that goodwill and some intangible assets will no longer be amortized but instead will be subject to periodic impairment testing. The Company does not expect the adoption of SFAS No. 142 to have a significant impact on its financial position and results of operations. Amortization of goodwill was immaterial for the year ended December 31, 2001.

In August 2001, the Financial Accounting Standards Board issued SFAS No. 143, "Accounting for Asset Retirement Obligations" (effective for fiscal years beginning after June 15, 2002). SFAS No. 143 addresses accounting and reporting for obligations associated with the retirement of tangible long-lived assets and retirement of assets. The Company does not expect the adoption of SFAS No. 143 to have a significant impact on its financial position and results of operations.

In October 2001, the Financial Accounting Standards Board issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 changes the accounting for long-lived assets by requiring that all long-lived assets be measured at the lower of carrying amount or fair value less cost to sell, whether reporting continuing operations or in discontinued operations. SFAS No. 144, which replaces SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," is effective for fiscal years beginning after December 15, 2001. The Company does not expect the adoption of SFAS No. 144, which is effective for the Company as of January 1, 2002, to have a significant impact on its financial position and results of operations.

#### Q. Reclassification:

Certain prior year accounts have been reclassified to conform to the current year's presentation.



#### PROPERTY, PLANT AND EQUIPMENT:

Property, plant and equipment is comprised of the following:

	December	
	2000	2001
Land and building.....	\$ 1,639	\$ 2,611
Machinery and equipment.....	882	1,410
Furniture and fixtures .....	864	1,181
Computer equipment .....	1,643	2,139
Leasehold improvements .....	832	789
	5,860	8,130
Accumulated depreciation.....	(2,036)	(2,909)
Property, plant and equipment, net.....	\$ 3,824	\$ 5,221

Depreciation expense amounted to \$568, \$661 and \$1,027 for the years ended December 31, 1999, 2000 and 2001, respectively.



#### INVENTORIES:

Inventories are comprised of the following:

	December	
	2000	2001
Materials .....	\$10,701	\$15,048
Work-in-process .....	11,295	5,637
Finished goods .....	1,777	2,010
Total inventories .....	\$23,773	\$22,695

The Company has established reserves of \$960 and \$1,426 at December 31, 2000 and 2001, for slow moving and obsolete inventory.



#### INTANGIBLES:

Intangibles are comprised of the following:

	December	
	2000	2001
Purchased technology .....	\$ 22,731	\$ 22,731
Goodwill .....	3,178	3,178
	25,909	25,909
Accumulated amortization .....	(23,389)	(23,728)
Total intangibles .....	\$ 2,520	\$ 2,181

Amortization of intangibles amounted to \$436, \$339 and \$339 for the years ended December 31, 1999, 2000 and 2001, respectively.



#### COMMITMENTS AND CONTINGENCIES:

The Company rents space for its manufacturing and service operations and sales offices. Total rent expense for these facilities amounted to \$510, \$797 and \$1,169 for the years ended December 31, 1999, 2000 and 2001, respectively.

The Company also leases certain equipment pursuant to operating leases, which expire through 2004. Rent expense related to these leases amounted to \$64, \$52 and \$169 for the years ended December 31, 1999, 2000 and 2001, respectively.

Total future minimum lease payments under noncancelable operating leases as of December 31, 2001 amounted to \$810, \$644, \$475, \$465 and \$304 for the years 2002 to 2006, respectively.

Under various licensing agreements, the Company is obligated to pay royalties based on net sales of products sold. There are no minimum annual royalty payments. Royalty expense amounted to \$924, \$3,285 and \$2,924 for the years ended December 31, 1999, 2000 and 2001, respectively.

The Company was previously involved in a patent interference proceeding with Therma-Wave, Inc. in the United States Patent Office. In this proceeding, the Company was defending its patent rights with respect to some of the multiple angle, multiple wavelength ellipsometry technology it uses in its transparent thin film measurement systems. Therma-Wave requested that the proceeding be initiated in 1993 by filing a reissue application for one of its own patents, in which it sought to broaden the original issued claims. The proceeding was initiated by the Patent Office in June 1998. On September 28, 2001 a settlement was reached between the Company and Therma-Wave. No financial consideration was paid by either party.

From time to time the Company is subject to legal proceedings and claims in the ordinary course of business. The Company is not involved in any legal proceedings that would have a material effect on the Company's financial position or results of operations.

In 1996, the Company adopted the 1996 Stock Option Plan (the "Option Plan"). Under the Option Plan, the Company was authorized to grant options to purchase up to 1,069,902 shares of common stock. All of the outstanding options became 100% vested upon the initial public offering of the Company on November 12, 1999. As of December 31, 2000 and 2001, there were no shares of common stock reserved for future grants under the Option Plan.

During 1999, options issued to employees under the Option Plan entitled the holders to purchase shares of common stock at a per share price of \$0.56, which was less than the estimated fair value of the common stock on the date of grant. As a result, the Company recognized compensation expense of \$1,018 for the difference between the estimated fair value of the common stock on the date the option was granted and the exercise price.

The Company established an Employee Stock Purchase Plan (the "ESPP") effective August 31, 1999. Under the terms of the ESPP, eligible employees may have up to 15% of eligible compensation deducted from their pay and applied to the purchase of shares of common stock. The price the employee must pay for each share of stock will be 85% of the lower of the fair market value of the common stock at the beginning of the offering period or at the end of the applicable six month purchase period. The ESPP qualifies as a non-compensatory plan under section 423 of the Internal Revenue Code. As of December 31, 2000 and 2001, there were 265,548 and 520,099 shares available for issuance under the ESPP, respectively.

The Company established the 1999 Stock Plan (the "1999 Plan") effective August 31, 1999. The 1999 Plan provides for the grant of 2,000,000 stock options and stock purchase rights, subject to annual increases, to employees, directors and consultants at an exercise price equal to or greater than the fair market value of the common stock on the date of grant. Options granted under the 1999 Plan vest over a five year period and expire ten years from the date of grant. As of December 31, 2000 and 2001, there were 1,009,634 and 472,492 shares of common stock reserved for future grants under the 1999 Plan, respectively.

SFAS No. 123, "Accounting for Stock-Based Compensation," requires the disclosure of pro forma operating results had the Company adopted the fair value method. Under SFAS 123, the fair value of stock-based awards to employees is calculated through the use of option pricing models. For the year ended December 31, 1999, with the exception of the ESPP, the fair value of each option grant was estimated on the date of the grant using the Black-Scholes option-pricing model using a dividend yield of 0%, volatility of 66%, expected life of an option of 9 years and a risk-free interest rate of 4.85%. For the year ended December 31, 2000 the fair value for each option grant was estimated on the date of grant using a dividend yield of 0%, volatility of 109%, expected life of an option of 5 years and a risk free interest rate of 5.2%. The fair value for each option grant from the ESPP was estimated on the date of grant using a dividend yield of 0% volatility of 109%, expected life of 6 months and a risk free interest rate of 5.2%. For the year ended December 31, 2001 the fair value for each option grant was estimated on the date of grant using a

dividend yield of 0%, volatility of 95%, expected life of an option of 5 years and a risk free interest rate of 3.5%. The fair value for each option grant from the ESPP was estimated on the date of grant using a dividend yield of 0% volatility of 95%, expected life of 6 months and a risk free interest rate of 3.5%. Based on the Black-Scholes option-pricing model, the weighted average estimated fair value of employee stock option grants was \$7.58, \$28.39 and \$23.16 for 1999, 2000 and 2001, respectively. The weighted average estimated fair value of options granted under the ESPP was \$24.50 in 2000 and \$11.40 in 2001.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the option's vesting period. Had compensation costs been determined based upon the fair value at the grant date for awards under the Option Plan, consistent with the methodology prescribed under SFAS No. 123, the Company's pro forma net income attributable to common stockholders under SFAS No. 123 would have been \$2,846, \$21,879 and \$8,395 for the years ended December 31, 1999, 2000 and 2001, respectively. The pro forma basic net income per share would have been \$0.36, \$1.49 and \$0.53 for the years ended December 31, 1999, 2000 and 2001, respectively. The pro forma diluted net income per share would have been \$0.28, \$1.40, and \$0.51 for the years ended December 31, 1999, 2000 and 2001, respectively. With the exception of the options noted above, the exercise price of option grants was equal to the fair market value of the Company's common stock at the date of grant. Since options vest over several years and additional awards are expected to be issued in the future, the pro forma results are not likely to be representative of the effects of the application of the fair value based method on future periods.

The following tables summarize the stock option activity for the years ended December 31, 1999, 2000 and 2001:

	Options Outstanding		
	Number of Shares	Weighted Average Exercise Price per Share	Number of Shares Exercisable
Balance at			
December 31, 1998 .....	960,521	\$ 0.67	475,607
Granted .....	976,202	14.29	
Exercised .....	(386,610)	0.67	
Canceled .....	(18,451)	13.11	
Balance at			
December 31, 1999 .....	1,531,662	9.21	678,311
Granted .....	247,500	36.19	
Exercised .....	(152,727)	1.17	
Canceled .....	(110,483)	19.35	
Balance at			
December 31, 2000 .....	1,515,952	13.68	690,326
Granted .....	936,425	31.53	
Exercised .....	(221,789)	7.59	
Canceled .....	(101,848)	22.47	
Balance at			
December 31, 2001 .....	2,128,740	\$21.73	667,769



Stock option information as of December 31, 2001 is as follows:

Options Outstanding			Options Vested and Exercisable	
Exercise Price	Options Outstanding	Weighted Avg. Remaining Contract Life	Weighted Avg. Exercise Price per Share	Number Exercisable
\$ 0.56-\$ 0.73	400,650	6.05	\$ 0.66	400,650
16.00- 16.00	603,623	7.86	16.00	213,914
23.40- 33.19	535,034	9.71	29.68	6,698
33.40- 50.75	589,433	8.94	37.38	46,507
\$ 0.56-\$50.75	2,128,740	8.28	\$ 8.42	667,769

The Company has a 401(k) savings plan to provide retirement and incidental benefits for its employees. As allowed under Section 401(k) of the Internal Revenue Code, the Plan provides tax-deferred salary deductions for eligible employees. Employees may contribute from 1.0% to 15.0% of their annual compensation to the Plan, limited to a maximum annual amount as set periodically by the Internal Revenue Service. The Plan provides a 50% match of all employee contributions up to 6 percent of the employee's salary. Company matching contributions to the Plan totaled \$170, \$188 and \$200 for the years ended December 31, 1999, 2000 and 2001, respectively.

In addition, the Company has a profit sharing program, wherein a percentage of pre-tax profits, at the discretion of the Board of Directors, is provided to all employees who have completed a stipulated employment period. The Company did not make contributions to this program for the years ended December 31, 1999, 2000 and 2001.



#### EQUITY SECURITIES:

On June 14, 1996, the Company issued and sold 1,571,294 shares of Class A voting common stock, \$0.0003 par value at \$0.57 per share and 1,046,079 shares of Class B non-voting common stock, \$0.0003 par value at \$0.57 per share. The Company also issued to the holder of the Class A voting common stock a warrant to purchase 534,951 shares of Class A common stock of the Company at a purchase price of \$0.0003 per share.

During 1998 the Company issued additional Class A voting common stock and Class B non-voting common stock in connection with certain capital contributions. The Company also issued to the holder of the Class A voting common stock warrants to purchase 945,740 shares of Class A common stock of the Company at a purchase price of \$0.0003 per share based upon the holder's antidilution rights.

In November, 1999, the Board of Directors authorized a 35.66-for-one split of the Class A and Class B outstanding common stock. All share and per share amounts in the accompanying financial statements have been adjusted for the split.

On November 12, 1999, 5,520,000 shares of a new single class of common stock were sold; the net proceeds of \$80,845 were used to pay all outstanding debt and redeem all outstanding redeemable preferred stock. The Company also exchanged each

share of Class A and Class B common stock outstanding for one share of the new single class of common stock. In addition, all the outstanding warrants were exercised and exchanged on a cashless basis for 2,045,702 shares of common stock.



#### INCOME TAXES:

The components of income tax expense (benefit) are as follows:

	Year Ended December 31,		
	1999	2000	2001
Current:			
Federal .....	\$ 40	\$ 5,062	\$3,963
State .....	93	733	728
Foreign .....	—	—	—
	133	5,795	4,691
Deferred:			
Federal .....	(2,068)	(4,962)	2,132
State .....	(244)	(1,264)	386
Foreign .....	—	—	(710)
	(2,312)	(6,226)	1,808
Total income tax expense (benefit) .....	\$(2,179)	\$ (431)	\$6,499

Deferred tax assets are comprised of the following:

	December 31,	
	2000	2001
Amortization of intangibles .....	\$6,198	\$5,427
Deferred revenue .....	1,737	52
Foreign net operating loss carryforwards .....	—	710
Inventory obsolescence reserve .....	372	532
Fixed assets .....	136	154
Warranty .....	392	325
Accounts receivable .....	172	122
Employee stock options .....	294	207
Other .....	161	125
Net deferred tax asset .....	\$9,462	\$7,654

The provision (benefit) for income taxes differs from the amount of income tax determined by applying the applicable U.S. income tax rate to income taxes as follows:

	Year Ended December 31,		
	1999	2000	2001
Federal income tax provision			
at statutory rate .....	\$ 370	\$ 8,611	\$6,201
State taxes, net of			
federal effect .....	132	(345)	1,114
Change in valuation allowance .....	(2,841)	(8,600)	—
Research tax credit .....	—	(360)	(466)
Other .....	160	(263)	(350)
Provision (benefit) for			
income taxes .....	\$(2,179)	\$ (431)	\$6,499
Effective tax rate .....	(200)%	(2)%	36%

During 1998, the net deferred tax asset was reduced to zero with a valuation allowance as a result of recurring losses and with the uncertainty regarding the Company's ability to generate sufficient taxable income. In 1999 and 2000, based on industry and internal forecasts combined with the successful completion of our initial public offering and the reduction of debt, the Company reduced the deferred tax valuation allowance by \$2.8 million and \$8.6 million, for certain deferred tax assets that more likely than not would be realized.



#### GEOGRAPHIC REPORTING AND CUSTOMER CONCENTRATION:

	Year Ended December 31,		
	1999	2000	2001
Revenues from third parties:			
United States .....	\$17,959	\$39,902	<b>\$36,749</b>
Asia .....	10,798	34,765	<b>29,084</b>
Europe .....	7,578	10,695	<b>11,546</b>
Other .....	1,760	2,745	<b>2,019</b>
Total .....	<b>\$38,095</b>	<b>\$88,107</b>	<b>\$79,398</b>

Customers comprising 10% or more of the Company's total revenue for the period indicated:			
A .....	31.2%	19.4%	<b>33.4%</b>
B .....	6.3%	21.9%	<b>14.8%</b>

Accounts receivable of customers comprising 10% or more of the Company's total revenue for the period indicated:			
A .....	\$ 3,955	<b>\$ 3,193</b>	
B .....	\$ 3,122	<b>\$ 1,562</b>	

Substantially all of the assets of the Company are within the United States of America.



#### EARNINGS PER SHARE:

The Company has adopted SFAS No. 128, Earnings per Share, which requires the presentation of basic earnings per share ("Basic EPS") and diluted earnings per share ("Diluted EPS"). Basic EPS is computed by dividing income available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted EPS gives effect to all potential dilutive common shares outstanding during the period. The computation of Diluted EPS does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings.

The computations of Basic EPS and Diluted EPS for the years ended December 31, 1999, 2000 and 2001 are as follows:

	Income (Numerator)	Shares (Denominator)	Per-Share Amount
For the year ended December 31, 1999			
Net income .....	\$ 2,839		
Preferred stock dividends .....	(508)		
Basic EPS:			
Net income available to common stockholders .....	\$ 2,331	7,880,622	\$ 0.30
Effect of dilutive stock options .....	—	2,550,855	(0.08)
Diluted EPS			
Net income available to common stockholders .....	\$ 2,331	10,431,477	\$ 0.22
For the year ended December 31, 2000			
Basic EPS:			
Net income .....	\$23,576	14,773,295	\$1.60
Effect of dilutive stock options .....	—	1,031,893	(0.11)
Diluted EPS:			
Net income .....	\$23,576	15,805,188	\$ 1.49
For the year ended December 31, 2001			
Basic EPS:			
Net income .....	\$11,740	15,899,933	\$ 0.74
Effect of dilutive stock options .....	—	631,528	(0.03)
Diluted EPS:			
Net income .....	\$11,740	16,531,461	\$ 0.71

For the year ended December 31, 1999, all outstanding options and warrants were included in the calculation of earnings per share. For the year ended December 31, 2000 and 2001, the Company had outstanding options to purchase 184,750 and 420,136 shares of common stock which were excluded from the calculation due to the anti-dilutive nature of these instruments.



#### QUARTERLY CONSOLIDATED FINANCIAL DATA (UNAUDITED):

The following tables present certain unaudited consolidated quarterly financial information for each of the eight quarters ended December 31, 2001. In the opinion of the Company's management, this quarterly information has been prepared on the same basis as the consolidated financial statements and includes all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the information for the period presented. The results of operations for any quarter are not necessarily indicative of results for the full year or for any future period.

The Company's business is not seasonal; therefore year-over-year quarterly comparisons of the Company's results of operations may not be as meaningful as the sequential quarterly comparisons set forth below which tend to reflect the cyclical activity of the semiconductor industry as a whole. Quarterly fluctuations in expenses are related directly to sales activity and volume and may also reflect the timing of operating expenses incurred throughout the year.

	March 31, 2001	June 30, 2001	Quarters Ended September 30, 2001	December 31, 2001	Total
Revenues .....	\$30,561	\$23,088	\$15,058	\$10,691	\$79,398
Gross profit .....	16,748	11,999	6,735	4,118	39,600
Income before income taxes .....	9,691	6,533	1,257	758	18,239
Net income .....	6,101	4,117	859	663	11,740
Net income per share:					
Basic .....	\$ 0.40	\$ 0.26	\$ 0.05	\$ 0.04	\$ 0.74
Diluted .....	\$ 0.38	\$ 0.25	\$ 0.05	\$ 0.04	\$ 0.71
Weighted average number of shares outstanding:					
Basic .....	15,363,284	16,039,391	16,081,194	16,111,965	15,899,933
Diluted .....	16,057,313	16,712,286	16,649,058	16,697,575	16,531,461

As discussed in Note 2B, the Company changed its accounting method for revenue recognition in the fourth quarter of the year ended December 31, 2000, effective January 1, 2000. Accordingly, the following unaudited quarterly consolidated financial data for the first three quarters of the year ended December 31, 2000 has been restated to reflect the impact of the change in accounting method as if adopted on January 1, 2000.

	March 31, 2000	June 30, 2000	Quarters Ended September 30, 2000	December 31, 2000	Total
Revenues:					
As reported .....	\$16,993	\$20,003	\$24,649	\$28,924	\$90,569
Effect of a change in accounting principle .....	(1,151)	(102)	(1,209)	—	(2,462)
As restated or as reported in the fourth quarter .....	\$15,842	\$19,901	\$23,440	\$28,924	\$88,107
Gross profit:					
As reported .....	\$ 9,025	\$10,769	\$13,137	\$15,784	\$48,715
Effect of a change in accounting principle .....	(1,151)	(102)	(1,209)	—	(2,462)
As restated or as reported in the fourth quarter .....	\$ 7,874	\$10,667	\$11,928	\$15,784	\$46,253
Income before income taxes and cumulative effect of a change in accounting principle:					
As reported .....	\$ 4,621	\$ 6,050	\$ 7,492	\$ 8,902	\$27,065
Effect of a change in accounting principle .....	(1,151)	(102)	(1,209)	—	(2,462)
As restated or as reported in the fourth quarter .....	\$ 3,470	\$ 5,948	\$ 6,283	\$ 8,902	\$24,603
Net income:					
As reported .....	\$ 2,851	\$ 8,576	\$ 6,303	\$ 8,827	\$26,557
Effect of a change in accounting principle .....	(710)	(64)	(749)	—	(1,523)
Cumulative effect of a change in accounting principle .....	(1,458)	—	—	—	(1,458)
As restated or as reported in the fourth quarter .....	\$ 683	\$ 8,512	\$ 5,554	\$ 8,827	\$23,576
Basic earnings per share:					
As reported .....	\$ 0.19	\$ 0.58	\$ 0.43	\$ 0.59	\$ 1.79
Effect of a change in accounting principle .....	(0.05)	—	(0.05)	—	(0.10)
Cumulative effect of a change in accounting principle .....	(0.09)	—	—	—	(0.09)
As restated or as reported in the fourth quarter .....	\$ 0.05	\$ 0.58	\$ 0.38	\$ 0.59	\$ 1.60
Diluted earnings per share:					
As reported .....	\$ 0.18	\$ 0.54	\$ 0.40	\$ 0.56	\$ 1.68
Effect of a change in accounting principle .....	(0.05)	—	(0.05)	—	(0.10)
Cumulative effect of a change in accounting principle .....	(0.09)	—	—	—	(0.09)
As restated or as reported in the fourth quarter .....	\$ 0.04	\$ 0.54	\$ 0.35	\$ 0.56	\$ 1.49
Weighted average number of shares outstanding:					
Basic .....	14,684,706	14,730,631	14,801,773	14,859,795	14,773,295
Diluted .....	15,864,997	15,756,738	15,797,230	15,760,343	15,805,188

To the Stockholders and Board of Directors  
of Rudolph Technologies, Inc.:

We have audited the accompanying consolidated balance sheet of Rudolph Technologies, Inc. (a Delaware corporation) and subsidiary as of December 31, 2001, and the related consolidated statements of income, stockholders' equity and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Rudolph Technologies, Inc. and subsidiary as of December 31, 2001, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States.

*Arthur Andersen LLP*

Roseland, New Jersey  
January 25, 2002

To the Stockholders and Board of Directors  
of Rudolph Technologies, Inc.:

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations, stockholders' equity (deficit) and cash flows present fairly, in all material respects, the financial position of Rudolph Technologies, Inc. and subsidiary (the "Company") at December 31, 2000, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2B to the consolidated financial statements, during the year ended December 31, 2000 the Company changed its method of recognizing revenue.

*PricewaterhouseCoopers LLP*

Florham Park, New Jersey  
January 26, 2001

Our common stock is traded on the Nasdaq National Market® under the symbol "RTEC." The following table sets forth, for the periods indicated, the high and low sale prices per share of our common stock as reported on the Nasdaq National Market.

		Price Range of Common Stock	
		High	Low
2000			
	First Quarter.....	\$59.44	\$27.06
	Second Quarter .....	\$45.00	\$22.00
	Third Quarter .....	\$48.00	\$24.00
	Fourth Quarter .....	\$44.00	\$22.38
2001			
	First Quarter .....	\$53.69	\$26.75
	Second Quarter .....	\$54.50	\$27.25
	Third Quarter .....	\$46.26	\$22.30
	Fourth Quarter .....	\$41.85	\$15.52

As of January 24, 2002, there were approximately 58 stockholders of record of our common stock.

We have never declared or paid a cash dividend on our common stock and do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain our earnings, if any, for the development of our business. The declaration of any future dividends by us is within the discretion of our Board of Directors and will be dependent on our earnings, financial condition and capital requirements as well as any other factors deemed relevant by our Board of Directors.

# Selected Financial Data

The following selected financial data should be read in conjunction with our Consolidated Financial Statements and the related Notes thereto appearing elsewhere in this Annual Report, and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The balance sheet data as of December 31, 2000 and 2001 and the statement of income data for the years ended December 31, 1999, 2000 and 2001 set forth below were derived from audited consolidated financial statements included elsewhere in this Annual Report. The balance sheet data as of December 31, 1997, 1998 and 1999, and the statement of income data for the years ended December 31, 1997 and 1998 were derived from audited financial statements not included herein.

(In thousands, except share and per share data)	Year Ended December 31,				
	1997 <sup>(2)</sup>	1998	1999	2000	2001
<b>Statement of Income Data:</b>					
Revenues.....	\$ 35,339	\$ 20,106	\$ 38,095	\$88,107	\$ 79,398
Gross profit .....	21,436	6,927	19,794	46,253	39,600
Income (loss) before extraordinary item and cumulative effect of a change in accounting principle.....	(1,001)	(14,078)	3,266	25,034	11,740
Net income (loss) available to common stockholders.....	(1,469)	(14,585)	2,331	23,576	11,740
Net income (loss) per share available to common stockholders from continuing operations:					
Basic:					
Income (loss) before extraordinary item and cumulative effect of a change in accounting principle .....	\$ (0.38)	\$ (3.13)	\$ 0.41	\$ 1.69	\$ 0.74
Extraordinary item <sup>(1)</sup> .....	—	—	(0.05)	—	—
Cumulative effect of a change in accounting principle .....	—	—	—	(0.09)	—
Preferred stock dividends .....	(0.18)	(0.11)	(0.06)	—	—
Net income (loss) available to common stockholders.....	\$ (0.56)	\$ (3.24)	\$ 0.30	\$ 1.60	\$ 0.74
Diluted:					
Income (loss) before extraordinary item and cumulative effect of a change in accounting principle.....	\$ (0.38)	\$ (3.13)	\$ 0.31	\$ 1.58	\$ 0.71
Extraordinary item .....	—	—	(0.04)	—	—
Cumulative effect of a change in accounting principle .....	—	—	—	(0.09)	—
Preferred stock dividends .....	(0.18)	(0.11)	(0.05)	—	—
Net income (loss) available to common stockholders.....	\$ (0.56)	\$ (3.24)	\$ 0.22	\$ 1.49	\$ 0.71
Pro forma amounts assuming the accounting change is applied retroactively (See Note 2B of the Notes to the Consolidated Financial Statements):					
Income (loss) before extraordinary item .....		\$ (13,610)	\$ 2,485	\$25,034	\$ 11,740
Per share amounts:					
Basic .....		\$ (3.02)	\$ 0.32	\$ 1.69	\$ 0.74
Diluted .....		\$ (3.02)	\$ 0.24	\$ 1.58	\$ 0.71
Net income (loss) available to common stockholders.....		\$ (14,117)	\$ 1,550	\$25,034	\$ 11,740
Per share amounts:					
Basic .....		\$ (3.13)	\$ 0.20	\$ 1.69	\$ 0.74
Diluted .....		\$ (3.13)	\$ 0.15	\$ 1.58	\$ 0.71
Weighted average common shares outstanding:					
Basic .....	2,617,373	4,503,396	7,880,622	14,773,295	15,899,933
Diluted .....	2,617,373	4,503,396	10,431,477	15,805,188	16,531,461

	December 31,				
	1997	1998	1999	2000	2001
<b>Balance Sheet Data:</b>					
Cash and cash equivalents .....	\$ 189	\$ 431	\$ 35,076	\$29,736	\$ 94,642
Working capital (deficit) .....	3,134	(1,052)	49,217	70,122	128,647
Total assets .....	28,513	21,121	64,947	98,554	147,798
Long-term debt, less current portion .....	24,000	25,370	—	—	—
Redeemable preferred stock.....	6,107	6,614	—	—	—
Retained earnings (accumulated deficit) .....	(15,954)	(30,032)	(27,193)	(3,617)	8,123
Total stockholders' equity (deficit) .....	(15,327)	(26,759)	57,610	83,508	142,150

(1) In 1999, an extraordinary loss was recorded for the early extinguishment of debt.

(2) For periods prior to 1998, data was not available to provide pro forma information as if the change in accounting principle was applied retroactively.

# Corporate Information

## BOARD OF DIRECTORS

Paul F. McLaughlin  
*Chairman of the Board and  
Chief Executive Officer*

David Belluck  
*General Partner and Director  
Riverside Partners, Inc.*

Daniel H. Berry  
*Industry Consultant*

Paul Craig  
*General Partner and Director  
Riverside Partners, Inc.*

Stephen J. Fisher  
*Partner  
Liberty Partners L.P.*

Carl E. Ring, Jr.  
*Founding Partner  
Liberty Partners L.P.*

Richard F. Spanier  
*Director, Chairman Emeritus*

Aubrey C. Tobey  
*President  
ACT International Consulting, Inc.*

## LEGAL COUNSEL

Wilson Sonsini Goodrich & Rosati  
Palo Alto, California

## INDEPENDENT ACCOUNTANTS

Arthur Andersen LLP  
Roseland, New Jersey

## REGISTRAR AND TRANSFER AGENT

American Stock Transfer and  
Trust Company  
6201 15th Avenue  
Brooklyn, New York 11219  
718-921-8261

## CORPORATE HEADQUARTERS

Rudolph Technologies, Inc.  
One Rudolph Road  
Flanders, New Jersey 07836

## OFFICES

Rudolph Technologies West Coast  
Santa Clara, California

Rudolph Technologies Midwest  
Austin, Texas  
Houston, Texas

Rudolph Technologies Europe B.V.  
Woerden, The Netherlands

Rudolph Technologies Singapore  
Singapore

Rudolph Technologies Korea  
Seoul, Korea

Rudolph Technologies Taiwan  
Hsin-Chu City, Taiwan

## EXECUTIVE OFFICERS

Paul F. McLaughlin  
*Chairman of the Board  
and Chief Executive Officer*

Robert M. Loiterman  
*Senior Vice President of Technology  
and General Manager of  
Integrated Metrology*

Steven R. Roth  
*Senior Vice President, Finance and  
Administration and  
Chief Financial Officer*

Nathan H. Little  
*Vice President of Operations*

## KEY EMPLOYEES

George J. Collins  
*Vice President of Marketing*

Robert DiCrosta  
*Vice President of  
Global Customer Support*

Ajay Khanna  
*Vice President of International Sales*

David M. Leet  
*Director of Transparent Metrology and  
Technical Strategic Planning*

Christopher J. Morath  
*Director of Product Development*

R. Gregory Wolf  
*Director of Technology Acquisition*

## GENERAL SHAREHOLDER AND INVESTOR QUESTIONS MAY BE DIRECTED TO EITHER:

Steven R. Roth  
*Chief Financial Officer  
Rudolph Technologies, Inc.  
One Rudolph Road  
Flanders, New Jersey 07836  
973-691-1300*

or:

Corey Cutler  
*Morgen-Walke Associates, Inc.  
Financial and Corporate  
Communications  
380 Lexington Ave., 50th Floor  
New York, New York 10168  
212-850-5600*

## STOCK SYMBOL

Common Stock traded on the  
Nasdaq National Market® under  
the symbol RTEC.

## ANNUAL MEETING

Stockholders are invited to attend  
the Annual Meeting at 11:00 AM  
on Tuesday, May 21st at our  
corporate headquarters in Flanders,  
New Jersey.

## FORM 10-K

The Annual Report on Form 10-K  
filed with the Securities and  
Exchange Commission is  
available without charge upon  
written request to:

Investor Relations  
Rudolph Technologies, Inc.  
One Rudolph Road  
Flanders, New Jersey 07836  
973-691-1300



**RUDOLPH**

Technologies, Inc.

One Rudolph Road  
Flanders, New Jersey 07836  
973-691-1300  
[www.rudolphtech.com](http://www.rudolphtech.com)